

REMARKS

Applicants respectfully request reconsideration of the present U.S. Patent application as amended herein. Claims 1 and 12 have been amended. Claims 1 and 3-20 are pending.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 3-10 and 12-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,953,314 issued to Ganmukhi et al. in view of U.S. Patent No. 5,802,047 issued to Kinoshita.

Claim 1 recites the following:

a first interface comprising a plurality of physical communication ports to transmit data to and receive data from a plurality of network devices;

a first control unit communicatively coupled to the first interface to process at least a first subset of the data;

a second control unit communicatively coupled to the first interface and the first control unit to process at least a second subset of the data; and

a logical network interface to provide multiple logical communication ports, the logical network interface communicatively coupled between the first interface and the first and second control units, wherein the logical network interface is communicatively coupled to each of the physical communication ports of the first interface by at least one signal line such that either one of the first and second control units may communicate with any of the plurality of network devices if the other of the first and second control units fails, and wherein the logical network interface provides each control unit with the ability to simultaneously address each of the physical communication ports.

Ganmukhi discloses a control processor switchover for a telecommunications switch.

The Office Action states that Ganmukhi does not disclose a logical network interface to provide multiple logical communications ports that are coupled to the physical ports of the first interface.

Therefore, Ganmukhi does not disclose a logical network interface communicatively coupled between the first interface and the first and second control units, wherein the logical network interface is communicatively coupled to each of the physical communication ports of the first interface by at least one signal line such that either one of the first and second control units may

communicate with any of the plurality of network devices if the other of the first and second control units fails, and wherein the logical network interface provides each control unit with the ability to simultaneously address each of the physical communication ports. These limitations are recited in claim 1.

Kinoshita discloses an inter-LAN connecting device with a combination of routing and switching functions. Kinoshita does not disclose a logical network interface communicatively coupled between the first interface and the first and second control units, wherein the logical network interface is communicatively coupled to each of the physical communication ports of the first interface by at least one signal line such that either one of the first and second control units may communicate with any of the plurality of network devices if the other of the first and second control units fails, and wherein the logical network interface provides each control unit with the ability to simultaneously address each of the physical communication ports. Therefore, Kinoshita does not cure the deficiencies of Ganmukhi. Thus, Applicants submit that claim 1 is patentable over Ganmukhi and Kinoshita.

Claims 3-10 are dependent claims and distinguish for at least the same reasons as their independent base claim in addition to adding further limitations of their own. Therefore, Applicants submit that claims 3-10 are patentable over Ganmukhi and Kinoshita for at least the reasons set forth above.

Claim 12 recites:

representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports such that either one of a first control unit and a second control unit communicatively coupled to the physical data communication ports can communicate with any of a plurality of external devices communicatively coupled to the physical data communication ports if the other of the first and second control units fails, wherein the logical communications ports are provided by a logical network interface, the logical network interface providing each control unit with the ability to simultaneously address each of the physical data communications ports.

Claim 18 similarly recites representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports such that either one of a first control unit and a second control unit can communicate with any of a plurality of external devices communicatively coupled to both the first and second control units if the other of the first and second control units fails.

As discussed above, Ganmukhi discloses a control processor switchover for a telecommunications switch. The Office Action states that Ganmukhi does not disclose the physical ports correspond to a plurality of logical data communications ports. Therefore, Ganmukhi does not disclose representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports such that either one of a first control unit and a second control unit can communicate with any of a plurality of external devices communicatively coupled to both the first and second control units if the other of the first and second control units fails, wherein the logical communications ports are provided by a logical network interface, the logical network interface providing each control unit with the ability to simultaneously address each of the physical data communications ports. These limitations are recited in claims 12 and 18.

As discussed above, Kinoshita discloses an inter-LAN connecting device with a combination of routing and switching functions. Kinoshita does not disclose representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports such that either one of a first control unit and a second control unit can communicate with any of a plurality of external devices communicatively coupled to both the first and second control units if the other of the first and second control units fails, wherein the logical communications ports are provided by a logical network interface, **the logical network interface providing each control unit with the ability to simultaneously address each of the**

physical data communications ports. Therefore, Kinoshita does not cure the deficiencies of Ganmukhi. Thus, Applicants submit that claims 12 and 18 are patentable over Ganmukhi and Kinoshita.

Claims 13-17 and 19-20 are dependent claims and distinguish for at least the same reasons as their independent base claim in addition to adding further limitations of their own. Therefore, Applicants submit that claims 13-17 and 19-20 are patentable over Ganmukhi and Kinoshita for at least the reasons set forth above.

Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,953,314 issued to Ganmukhi et al. in view of U.S. Patent No. 5,802,047 issued to Kinoshita and further in view of U.S. Patent No. 5,481,673 issued to Michelson.

As discussed above, neither Ganmukhi nor Kinoshita discloses a logical network interface communicatively coupled between the first interface and the first and second control units, wherein the logical network interface is communicatively coupled to each of the physical communication ports of the first interface by at least one signal line such that either one of the first and second control units may communicate with any of the plurality of network devices if the other of the first and second control units fail, and wherein the logical network interface provides each control unit with the ability to simultaneously address each of the physical communication ports, as recited in claim 1.

The Office Action states that Michelson disclose a switching system wherein status information is stored in routing tables. Whether or not Michelson discloses this feature, Michelson does not disclose a logical network interface communicatively coupled between the first interface and the first and second control units, wherein the logical network interface is communicatively coupled to each of the physical communication ports of the first interface by at least one signal line such that either one of the first and second control units may communicate

with any of the plurality of network devices if the other of the first and second control units fail, and wherein the logical network interface provides each control unit with the ability to simultaneously address each of the physical communication ports. Therefore, Michelson does not cure the deficiencies of Ganmukhi and Kinoshita. Thus, Applicants submit that claim 1 is patentable over Ganmukhi, Kinoshita, and Michelson.

Claim 11 is dependent on claim 1 and therefore incorporates all the limitations of claim 1 in addition to adding further limitations of its own. Therefore, Applicants submit that claim 11 is patentable over Ganmukhi, Kinoshita, and Michelson for at least the reasons discussed above.

Claim 20 is rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,953,314 issued to Ganmukhi et al. in view of U.S. Patent No. 5,802,047 issued to Kinoshita and further in view of U.S. Patent No. 6,147,996 issued to Laor.

As discussed above, neither Ganmukhi nor Kinoshita discloses representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports such that either one of a first control unit and a second control unit can communicate with any of a plurality of external devices communicatively coupled to both the first and second control units if the other of the first and second control units fails, as recited in claim 18.

The Office Action states that Laor discloses a switching system that performs layer 2 and layer 3 switching. Whether or not Laor discloses such a system, Laor does not disclose representing a plurality of physical data communication ports as a corresponding plurality of logical data communications ports such that either one of a first control unit and a second control unit can communicate with any of a plurality of external devices communicatively coupled to both the first and second control units if the other of the first and second control units fails. Therefore, Laor does not cure the deficiencies of Ganmukhi and Kinoshita. Thus, Applicants submit that claim 18 is patentable over Ganmukhi, Kinoshita, and Laor.

Claim 20 is dependent on claim 18 and therefore incorporates all the limitations of claim 18 in addition to adding further limitations of its own. Therefore, Applicants submit that claim 20 is patentable over Ganmukhi, Kinoshita, and Laor for at least the reasons discussed above.

Conclusion

In view of the remarks set forth above, Applicants submit that claims 1 and 3-20 are in condition for allowance and such action is respectfully solicited. The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number
02-2666.

Respectfully submitted,
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Date: 11/12/03

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